

Amendments to the Drawings

Accompanying this amendment is a proposed revision to Figure 1 of the application. A replacement sheet will be provided at such time as the drawing revision is approved.

In summary, it is proposed to correct a spelling error in steps 5 and 6. Further, step 6 as been revised to require providing a forecast. Support for this addition can be found on page 2, at line 21. Figure 1 has also been amended to include a box around steps 1 - 4 to indicate that these steps are repeated a number of times. The specification clearly states the intent to repeat these steps on page 28, lines 10 - 11 which recites, "The entire process is repeated four times at times $t = 1, 2, 3$, and 4". In addition, Step A, on page 17, lines 8 - 14 also specifies the requirement to repeat the steps associated with computing the estimated population means. As these amendments are fully supported by the specification, no new matter is introduced by this amendment.

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REMARKS

By this amendment, claims 1, 6, and 7 are amended, and new claim 8 is added for the Examiner's consideration. Claims 2 and 3 have been canceled. The application now includes claims 1 and 4 - 8.

The drawings have been proposed to be amended to correct a typographical error and to indicate that a forecast is being provided by the method as is discussed on page 2 of the application. Furthermore, the drawing has been amended to reflect the feature to repeat the steps for each repetition of the survey as stated in the specification on page 28, lines 10 - 11 and page 17, lines 8 - 14.

Claim 1 has been amended to change the term "behavior" to read "survey responses. Behavior seems to be used more commonly in psychology and other related fields and its use in this contexts may be confusing. As the subject invention is specifically drawn toward the interpretation of survey responses as the measure of the population behavior, the term "survey responses" is consistent with the intent and focus of the subject invention.

Claim 1 has also been added to recite the feature that the steps for calculating the population estimates is repeated as described in the specification on page 17, lines 8 - 14 and page 28 line 10 - 11.

Claim 6 has been amended to more clearly define the types of regression performed for the subject invention, namely, regular least square and weighted least square. The regular least square regression is fully supported by the invention as stated in numerous places throughout the specification. Specifically, in the paragraph beginning on page 23, line 4, the specification speaks to using the least square regression technique. The weighted regression technique is described in the paragraph beginning on page 28, line 12. This paragraph discusses the use of the weights for performing the regression estimate. As these features are fully supported by the specification, no new matter has been added with this amendment.

Claim 8 has been added to further define the type of trend analysis being performed, as is recited in claim 6.

Claims 1 - 7 have been rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. This rejection is traversed.

Claim 1, per the Examiners recommendation, has been amended to include a more specific reference to the use of computers processors and data bases for performing the steps of the subject invention. For example, step (b) of claim 1 has been amended to read,

“...obtaining survey responses from the members in said subset and storing said results in an electronic database....”

This amendment is consistent with the intent of the specification, page 7, line 9 that states, “..stored in a database.” Those skilled in the art would readily understand that a database in a computer-implemented methodology would mean an electronic database. Those skilled in the art would also assume that in order to access the electronic database, a computer processor is required. Thus, claim 1 has also been amended to include the phrase, “...using a computer processor...” at several of the steps. As these features were described in the specification, the amendments do not constitute new matter. With these amendments, claim 1 is drawn to statutory matter and claims 3 - 7, as dependent claims, include the same features as that which is described in claim 1.

Claim 7 has been rejected under 35 U.S.C. 112, second paragraph as being indefinite. This rejection is traversed.

Claim 7 has been amended to more clearly define the term, “predetermined amount.” The amended claim reads, “... by predetermined amount based on at least one of a set of characteristics of said population.” As described in the subject application, if a point estimate is constrained, it is because the characteristics of the population have constrained the scope of the estimate. The example used in the subject application is that a population of men and women totals 100% as there can

be no other members of the population other than men and women. Thus, the constraint is relative to the selected population characteristics and would vary for each analysis based on the characteristics of the particular population.

Claims 2 and 3 have been rejected under 35 U.S.C. 103 (a) as being obvious in view of AAP, ZHU and Wire. Based on a telephone call with the Examiner, it is understood by the undersigned that claims 1-7 were intended to be rejected as being obvious over AAP, Zhu and Wire, and that AAP is intended to be applicants admitted prior art which has been identified as the Background section of the application. This rejection is traversed.

Claim 1 has been amended to incorporate the use of sampling techniques as part of the selection step, and to require a repetitive process rather than one where a single survey is performed and analyzed. By including the sampling technique as part of claim 1, the sampling techniques are a feature associated with the specific steps of the subject invention. Thus, it is not just the use of sampling techniques in general but the use of sampling techniques relative to the steps of selecting a subset of a population, obtaining survey results, generating point estimates, generating confidence bounds, conducting a trend analysis, predicting future behavior, and providing a forecast. The 35 U.S.C. 103 (a) states that the obviousness would require the “..subject matter as a whole to be obvious..” For this to be true, all uses of sampling probability techniques would be directed to trend analysis and behavior prediction as in the subject invention. The references cited by the Examiner do not address trend analysis and behavior prediction. Instead, the references discuss the probability sampling techniques as general statistical tools and not as part of a specific population trend analysis. Thus, there is no basis to suggest that these techniques would make their use obvious for trend analysis and behavior predication.

The Examiner has identified several reference with regard to the subject invention. These reference do not apply to the subject invention. Specifically, the patents by Hamlin et al, Cohen et al, Fuerst, Alavi provided by the Examiner all deal

with the mechanics or logistics of conducting a survey. The subject invention is a method to analyze the survey responses over time to produce a forecast of future responses and to the Hamlin et al, Cohen et al, Fuerst, Alavi references, in that the methods proposed in these patents can be used to conduct the survey and collect the data, and then the subject invention method would be used to perform analysis on the data collected.

The patent by Ashby is on a method to detect and analyze the presence of biological matters in an environment. Even though the terms “survey” and “analysis” are used in the said patent, they are used in a completely different context and technical field, and bears no relationship to the kind of questionnaire survey of human subjects in the subject invention.

The patent by Williams and Miller are on a method to conduct a single survey and to analyze the population characteristic using a specific approach based on the five factor model in the field of psychology. This method is developed to understand the current psychological characteristics or personality of the subject population. The objective of the subject invention is to predict future (in time) responses or future characteristics of the population using a trend analysis of a number of past surveys. The subject invention approach does not use and has no relationship to the five factor model used in the said patent.

The reference by Rohrbach provides a method to calculate the upper confidence bound of the mean estimator in distributions commonly encountered in auditing. This can potentially be used in step 1(d) in claim 1. The subject invention focuses on an overall method to forecast future responses of the population.

The reference by Zhu has no relationship to the subject invention as it does not use the bootstrap method. Our proposed method cannot be deduced from the bootstrap method.

The reference by Carlin and Hocking describes the use of cluster sampling in real life case studies. This can potentially be used in step 1(a) in claim 1, as

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mentioned in lines 7-12 on page 6 of our application. The subject application focuses on an overall method to forecast future responses of the population.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1, 4 - 8 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: mike@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account 50-0510 (IBM-Yorktown).

Respectfully submitted,



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